

The following presentation is based on input from staff of various Louisiana state and federal resource agencies, but does not reflect the official position of any of the agencies involved.

# Louisiana Coastal Protection and Restoration

Preliminary  
Resource Agency  
Environmental Alternatives

# Agreed upon principles

- No levee construction w/o concomitant habitat restoration commensurate with the scale of levee const
- Restoration measures designed to maximize the dual purpose (hurricane prot./env. ben)
- Proposed features to be reviewed and modified as info becomes available on effectiveness

- Fully evaluate non-structural alternatives
- Hurricane protection should not come at the expense of the coastal environment
- Involve the public
- Plan for effects of features on hydrology

# Avoid and Minimize Impacts

- Use existing levee alignments
- New alignments on the upland side of the upland/wetland interface \*
- Avoid enclosing wetlands
- Minimize (and undo) the disruption of natural hydrology

- Unavoidable impacts to wetlands should be offset by compensatory mitigation measures
- Mitigation should be in-kind, same basin
- No mitigation credit for benefits to enclosed wetlands

- Anticipate and accommodate river reintroduction projects
- Use Miss. and Atchafalaya Rivers for restoration and storm protection

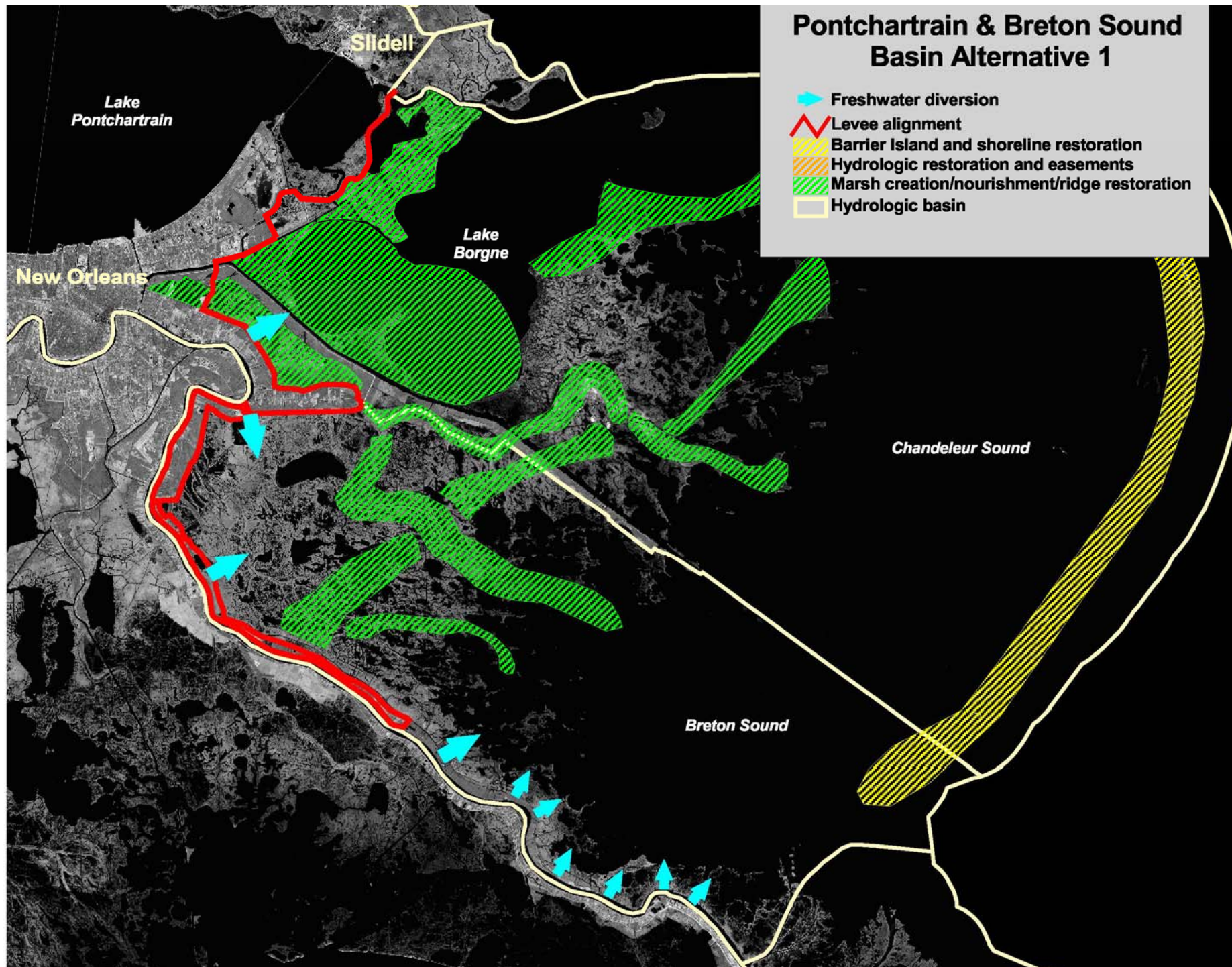
# Restoration Strategy

- Large scale creation of wetland and ridge barriers for storm surge protection, and maintain with diversions

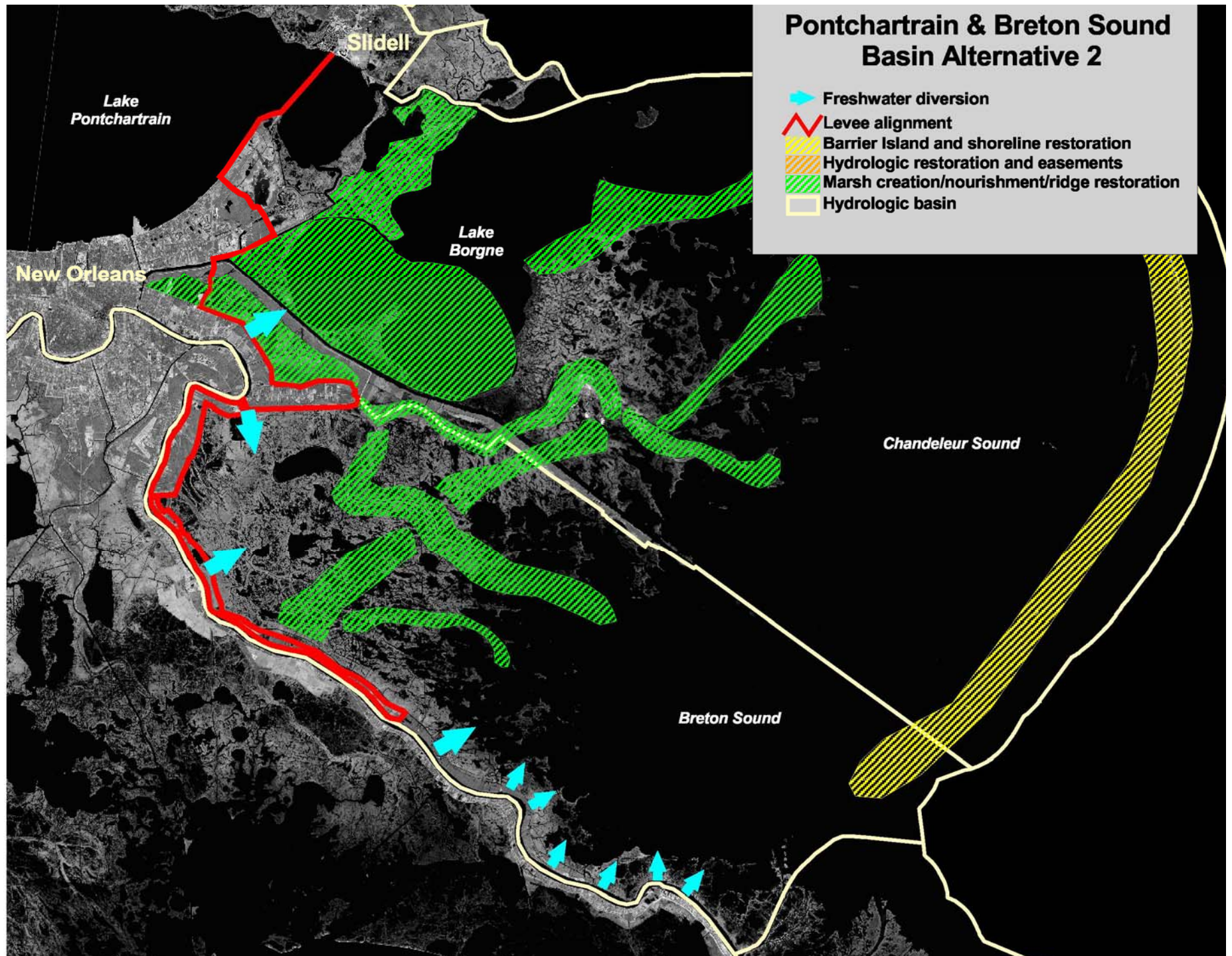


# Programmatic Sediment Sources

- Massive amounts needed
- Use external sources
- Avoid historical piecemeal approach, which results in adjacent borrow in wetlands
- Large-scale, such as offshore deposits, 2 rivers
- Pipeline delivery
- Economy of scale















## Barataria Basin Alternative 1

-  Freshwater diversion
-  Levee alignment
-  Barrier Island and shoreline restoration
-  Hydrologic restoration and easements
-  Marsh creation/nourishment/ridge restoration
-  Hydrologic basin

Lake Pontchartrain

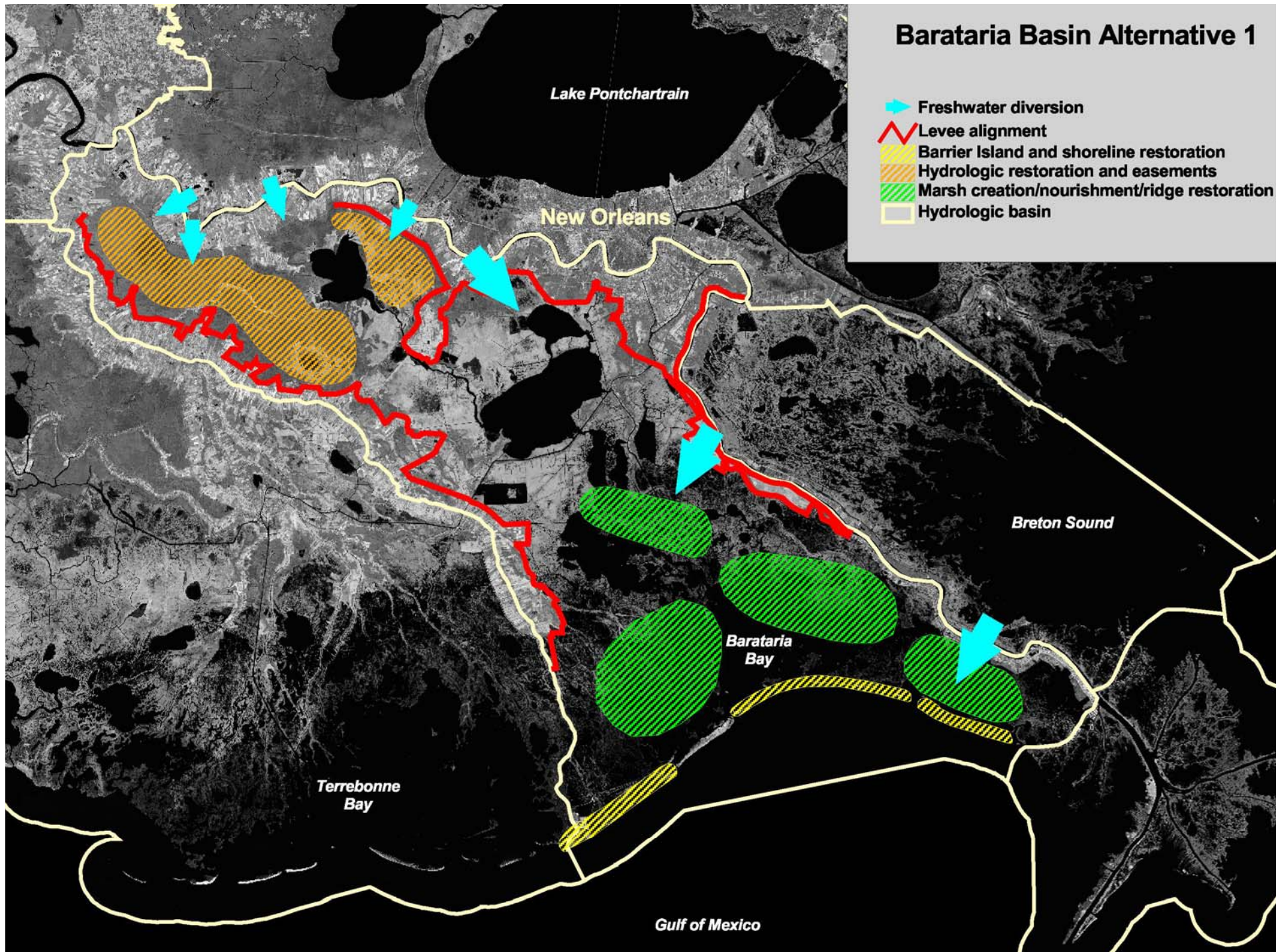
New Orleans

Breton Sound

Barataria Bay







Terrebonne Bay

Gulf of Mexico





## Barataria Basin Alternative 2

-  Freshwater diversion
-  Levee alignment
-  Barrier Island and shoreline restoration
-  Hydrologic restoration and easements
-  Marsh creation/nourishment/ridge restoration
-  Hydrologic basin

Lake Pontchartrain

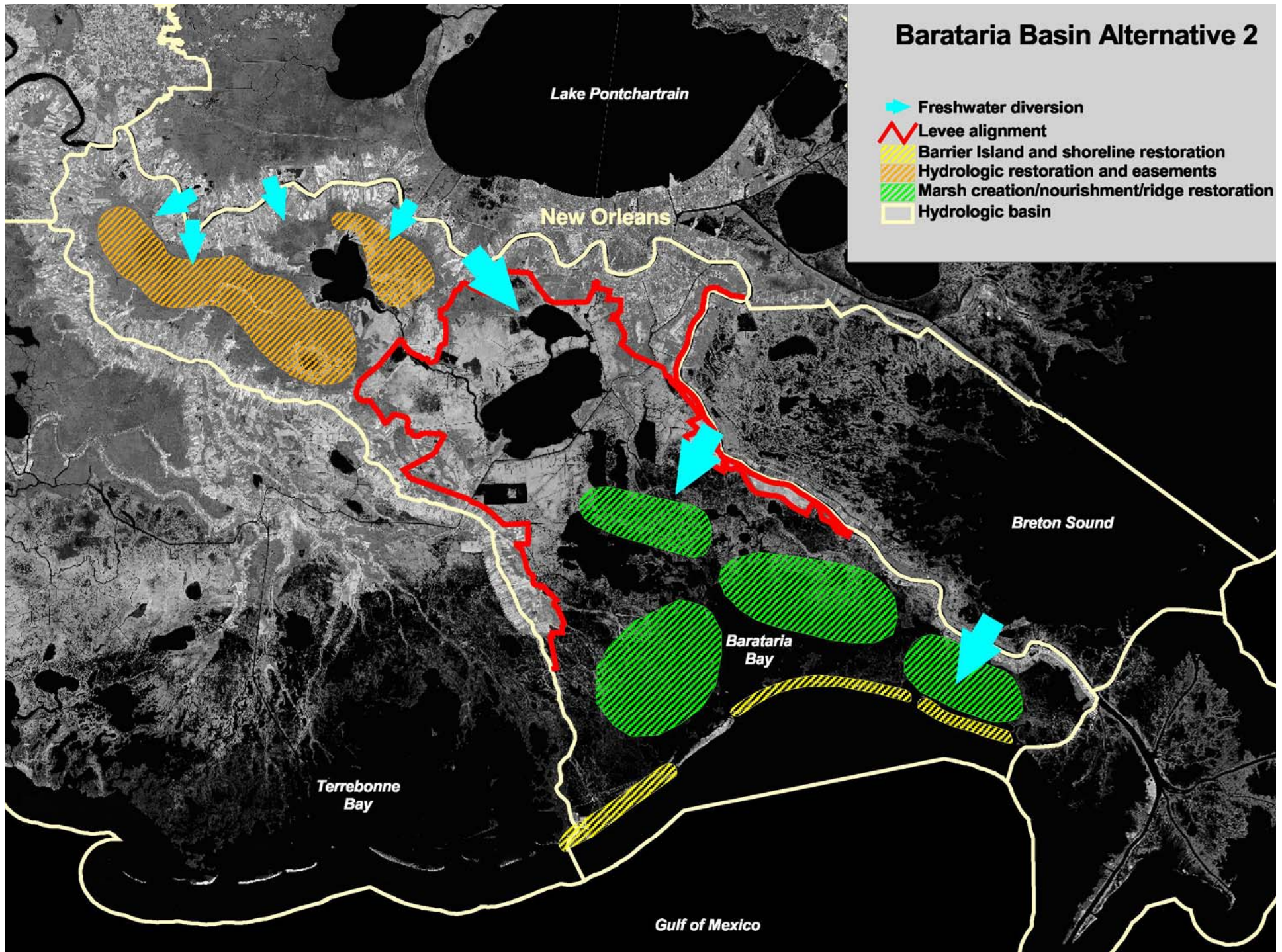
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Terrebonne Bay

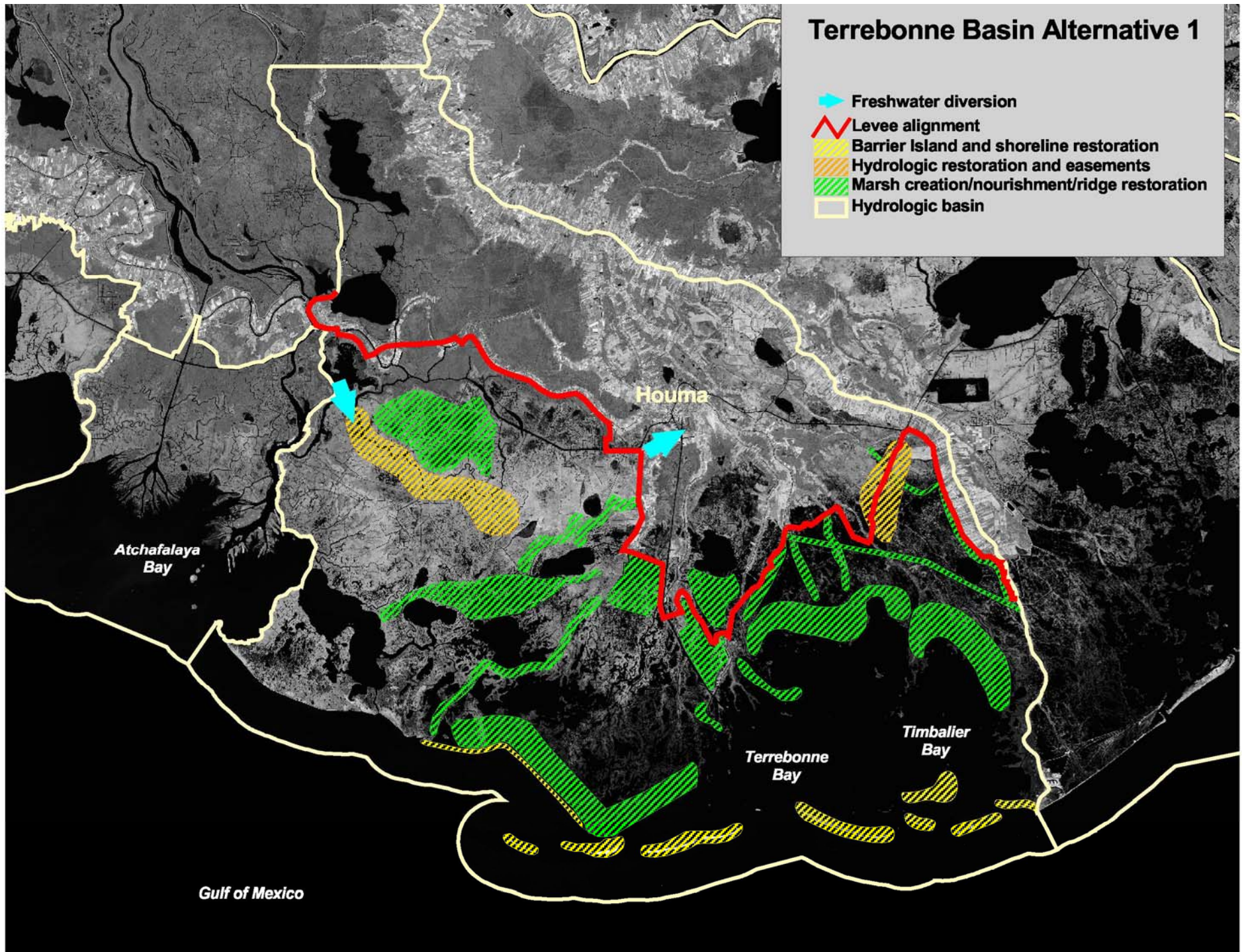
Gulf of Mexico











## Terrebonne Basin Alternative 1

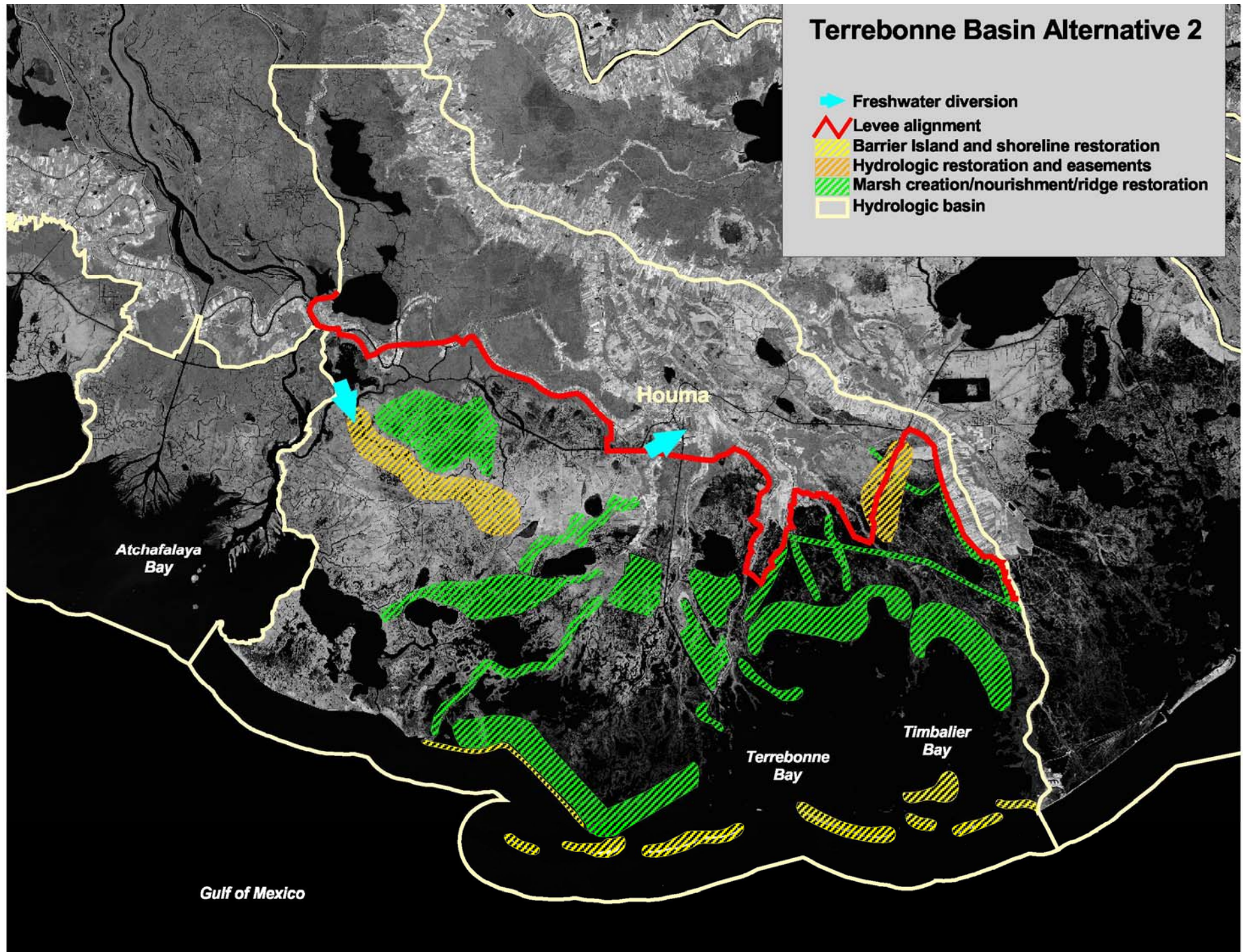
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
## Terrebonne Basin Alternative 2

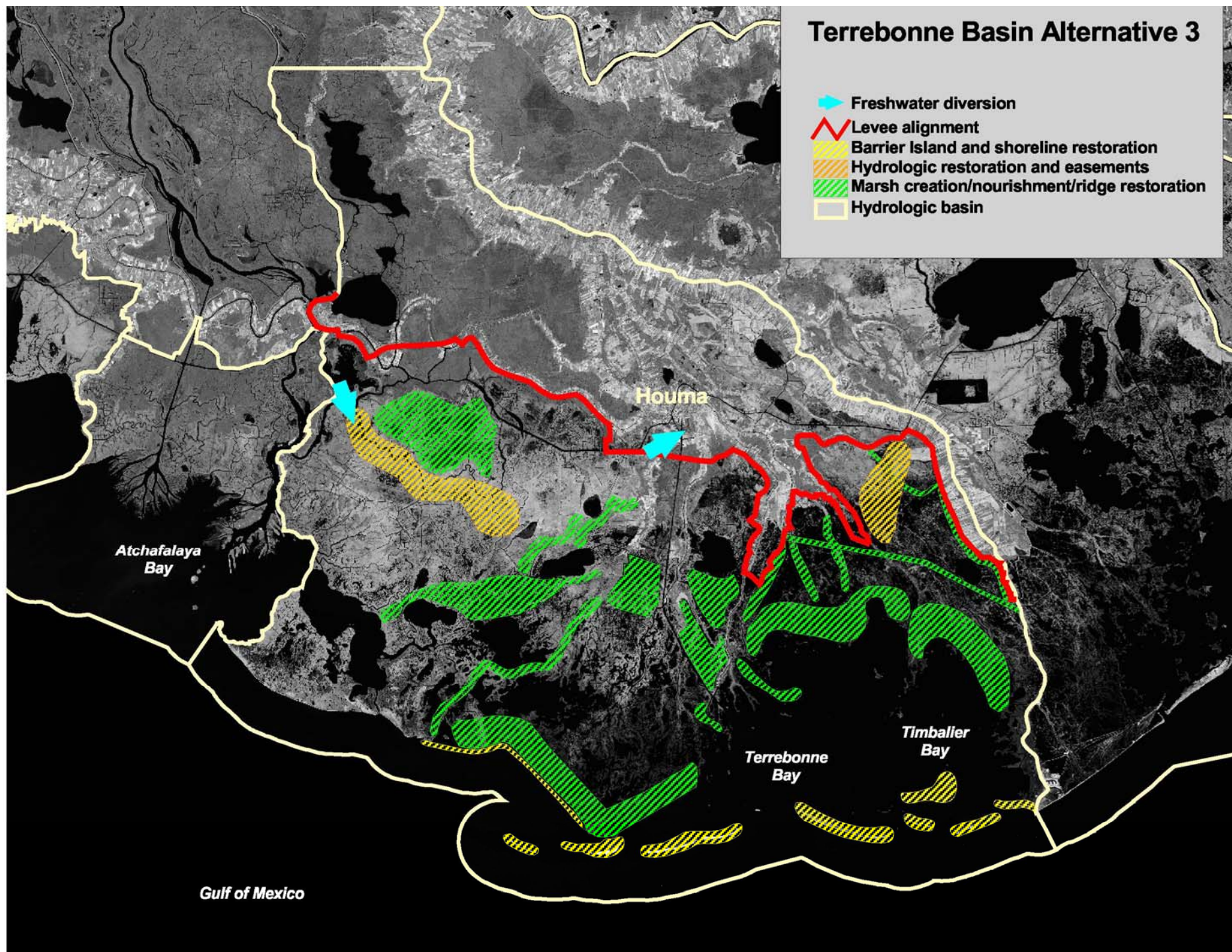
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### Terrebonne Basin Alternative 3

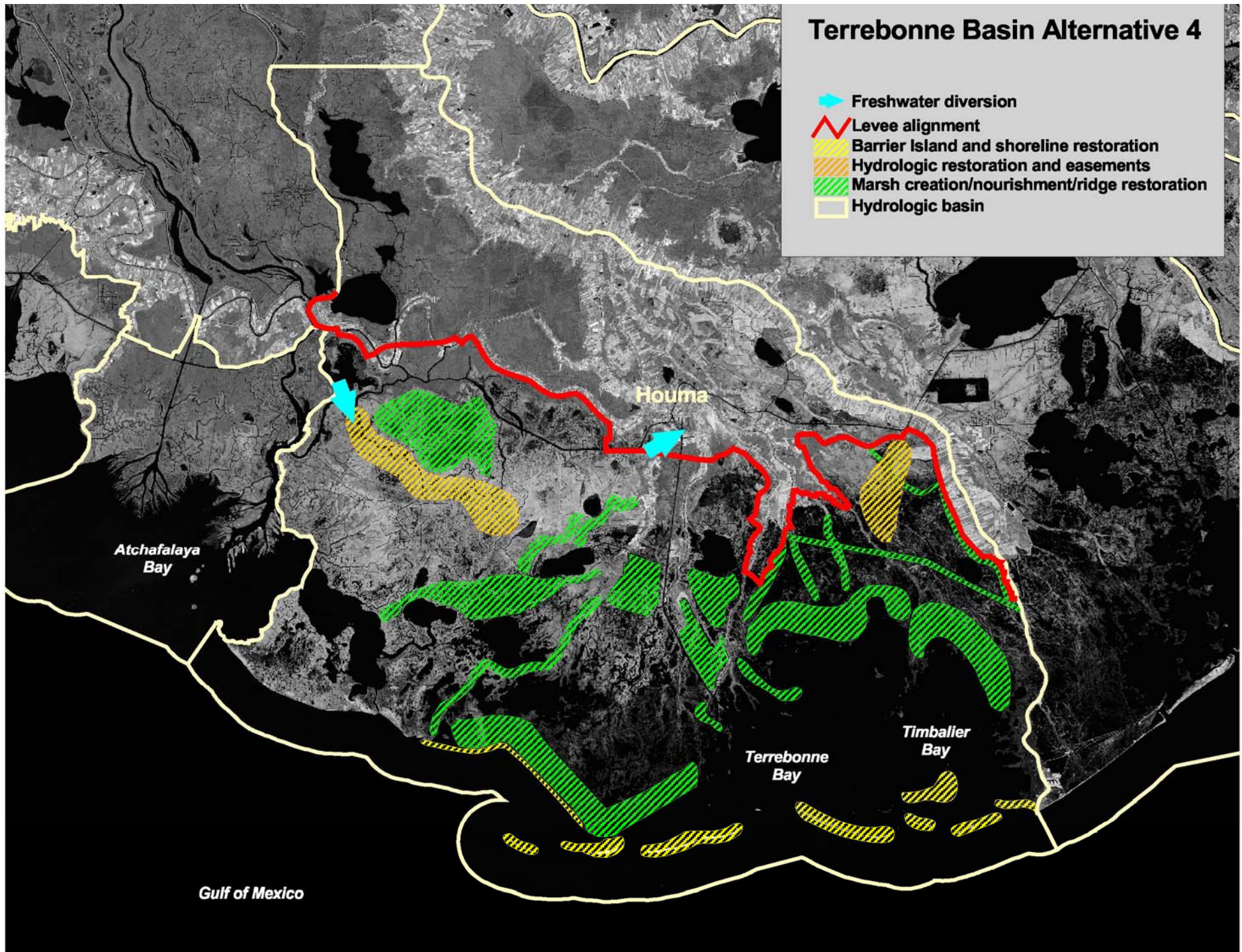
-  Freshwater diversion
-  Levee alignment
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-  Marsh creation/nourishment/ridge restoration
-  Hydrologic basin



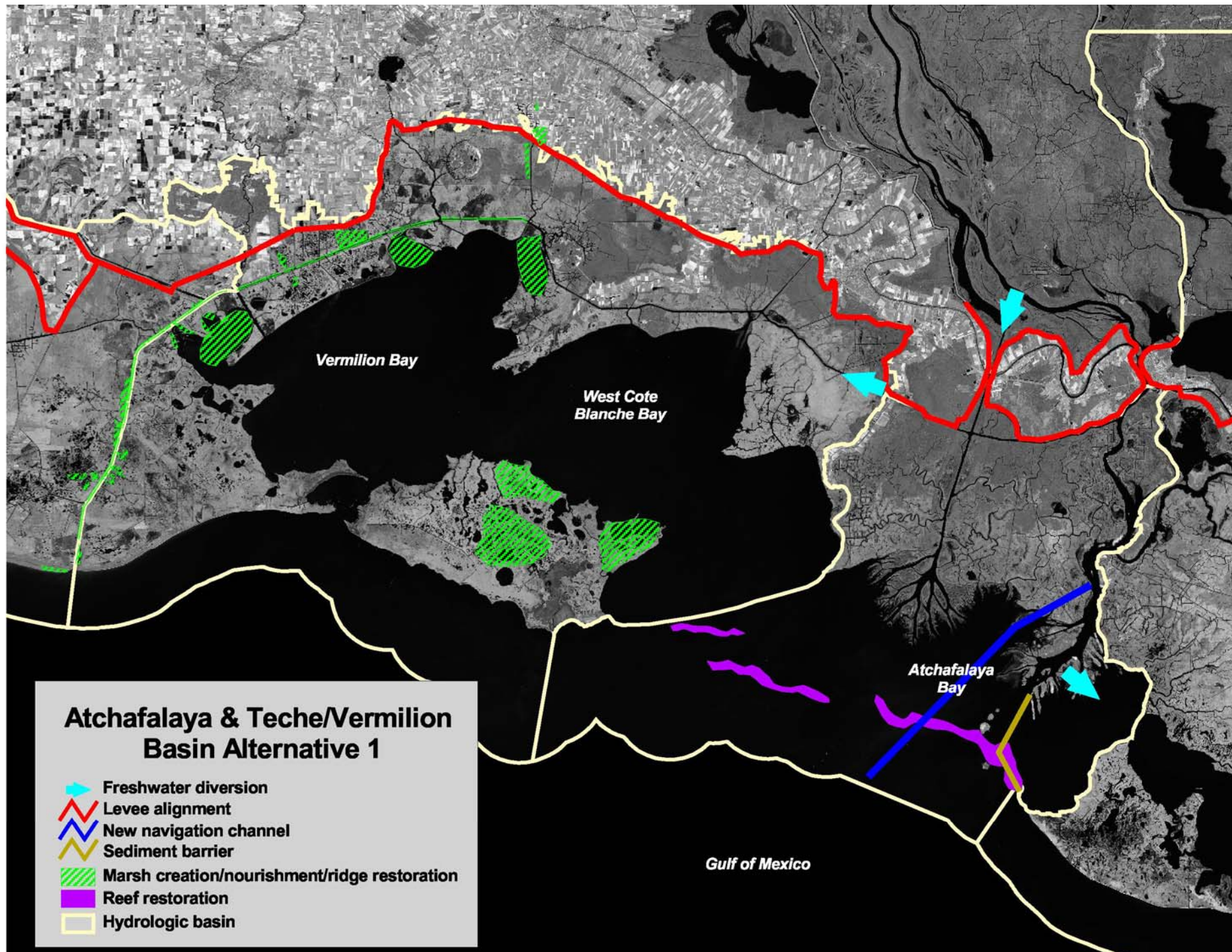


## Terrebonne Basin Alternative 4

-  Freshwater diversion
-  Levee alignment
-  Barrier Island and shoreline restoration
-  Hydrologic restoration and easements
-  Marsh creation/nourishment/ridge restoration
-  Hydrologic basin



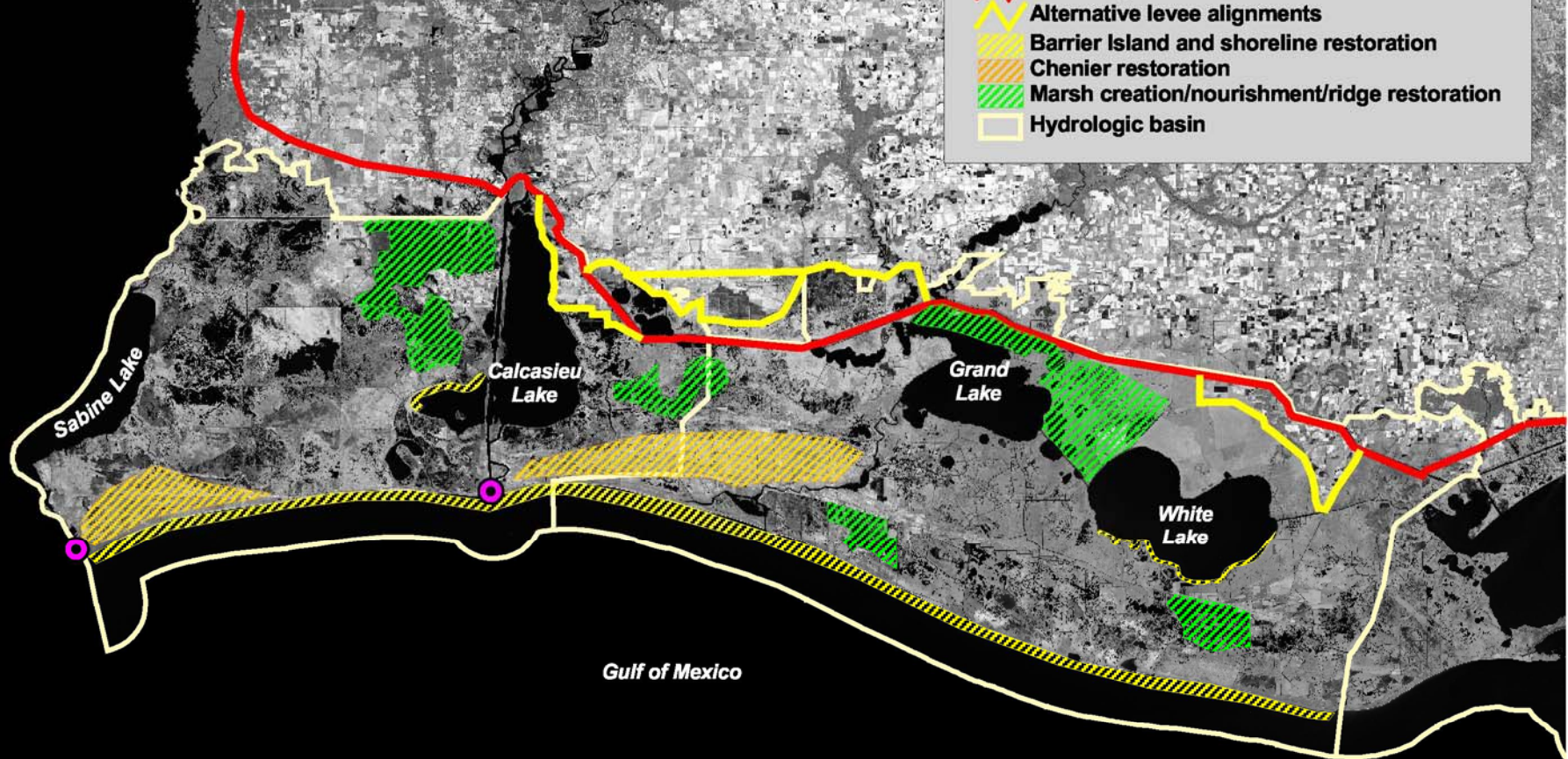






## Sabine & Mermentau Basin Alternatives

- Salinity control structure
- Levee alignment
- Alternative levee alignments
- ▨ Barrier Island and shoreline restoration
- ▨ Chenier restoration
- ▨ Marsh creation/nourishment/ridge restoration
- ▭ Hydrologic basin



Gulf of Mexico